

Patent Claims

1. Mobile unit (70) for treating, cleaning, washing etc. of objects such as vehicles, aircrafts, machines, containers etc., said mobile unit comprising
 - 5 - transport means,
 - a flexible collecting pad (2) with barrier means including inflatable barrier means (4),
 - means (98) for supplying air for inflating said inflatable barrier means (4),
 - transferring means (14, 30) for fluids collected on said collecting pad (2),
 - 10 - a storage tank (78) for collected fluids,
 - a storage tank (76) for fluid, e.g. water, for washing said object,
 - means for delivering and applying said fluid, e.g. said water,wherein said flexible collecting pad (2) is stored on a separate handling device (60) that is movable in relation to said transport means.
- 15 2. Mobile unit according to claim 1, wherein said transport means comprises a trailer (72).
3. Mobile unit according to claim 1 or 2, wherein said mobile unit comprises an
20 electric generator (95).
4. Mobile unit according to claim 1, 2 or 3, wherein said mobile unit (70) comprises means (94) for reusing said collected fluid, e.g. said used wash water, said reusing means comprising filtering means.
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5. Mobile unit according to one or more of claims 1 to 4, wherein said mobile unit (70) comprises means (80) for facilitating loading and unloading of said handling device.
- 30 6. Mobile unit according to one or more of claims 1 to 5, wherein said transferring means for fluids collected on said collecting pad comprises a vacuum pump (30).

7. Handling device (60) for storage and handling of a flexible collecting pad (2), said collecting pad (2) being designed for collecting of a fluid such as water, said handling device (60) comprising

- 5 - means for storage of said pad (2) on a rotatable element (66) such as a drum or a shaft,
- a frame (62) for carrying said means for storage of said pad (2), said frame having supporting wheels (64), and
- means (68) for driving said rotatable element (66) in relation to the frame (62), wherein
- 10 - said handling device (60) is adapted for transport by a vehicle, and
- said handling device (60) is separately movable.

8. Handling device according to claim 7, wherein said means (68) for driving said rotatable element (66) in relation to the frame comprises an electric drive motor.

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9. Handling device according to claim 7 or 8, wherein said means (68) for driving said rotatable element (66) in relation to the frame (62) is designed for reversing the drive direction.

- 20 10. Handling device according to claim 7, 8 or 9, wherein said handling device (60) comprises means for moving the handling device, such as drive means supported by the frame (62) and connected to at least one of said supporting wheels (64).

- 25 11. Handling device according to one or more of claims 7 - 10, wherein said handling device (60) comprises means (80) for facilitating unloading of the handling device from a vehicle (72), e.g. a trailer, a truck etc., and loading of the handling device onto the vehicle.

- 30 12. Collecting pad (2) for treating, cleaning, washing etc. of objects such as vehicles, aircrafts, machines, containers etc., said pad being designed for collecting of a fluid such as water, e.g. wash water, said collecting pad comprising
 - a flexible base pad (6) and

- barrier parts extending essentially along the periphery of said flexible pad, said barrier parts being at least in part accommodated for folding and comprising inflatable parts (4),

and wherein

5 said inflatable parts (4) that form part of said barrier parts are designed as longitudinally extending parts comprising at least two chambers (7) extending along each other.

13. Collecting pad according to claim 12, wherein said inflatable parts (4) comprise
10 an essentially vertical wall member (5) extending between said at least two chambers (7).

14. Collecting pad according to claim 12 or 13, wherein said flexible pad (6) comprises at least one incision (28), said at least one incision (28) comprising
15 incision barrier parts (25, 27).

15. Collecting pad according to claim 14, wherein at least part of said incision barrier parts are designed as a covering (25, 27) extending at least in part in the vertical direction.

20 16. Collecting pad according to claim 14 or 15, wherein said at least one incision (28) and said incision barrier parts (25, 27) are configured to correspond essentially to support means for said object, e.g. landing wheels (24, 26) for an aircraft (20) or wheels for a vehicle, a trailer, a machine etc. in such a manner that said incision
25 barrier parts can be placed covering said support means.

17. Collecting pad according to claim 14, 15 or 16, wherein said at least one incision (28) comprises connecting means for connecting the two edges of the incision (28) for at least part of the incision.

30 18. Collecting pad according to claim 17, wherein said connecting means for connecting the two edges of the incision are designed to be essentially fluid-tight.

19. Collecting pad according to claim 17 or 18, wherein said connecting means for connecting the two edges of the incision comprise Velcro parts, zip-fastener parts or similar means.

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20. Collecting pad according to one or more of claims 12 to 19, wherein said collecting pad (2) for collecting of a fluid comprises at least two of said flexible pads (2, 38), each comprising barrier parts (4, 36), wherein said flexible pads are designed for being assembled in a modular manner.

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21. Collecting pad (2) for treating, cleaning, washing etc. of objects such as vehicles, aircrafts, machines, containers etc., said pad being designed for collecting of a fluid such as water, e.g. wash water, said collecting pad comprising

- a flexible base pad (6) and

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- barrier parts extending essentially along the periphery of said flexible pad, said barrier parts being at least in part accommodated for folding and comprising inflatable parts (4),

and wherein

said flexible base pad (6) comprises at least two parts (8) connected to each other to form said base part by means of complementary connecting means (10 that are substantially fluid-tight and may be disconnected from each other.

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22. Collecting pad according to claim 21, wherein said connecting means for connecting two edges of said at least two parts comprise Velcro parts, zip-fastener parts or similar means.

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23. Collecting pad (2) for treating, cleaning, washing etc. of objects such as vehicles, aircrafts, machines, containers etc., said pad being designed for collecting of a fluid such as water, e.g. wash water, said collecting pad comprising

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- a flexible base pad (6) and

- barrier parts extending essentially along the periphery of said flexible pad, said barrier parts being at least in part accommodated for folding and comprising inflatable parts (4),

and wherein

- 5 said flexible pad (6) comprises at least one incision (28), said at least one incision (28) comprising incision barrier parts (25, 27).

24. Collecting pad according to claim 23, wherein at least part of said incision barrier parts are designed as a covering (25, 27) extending at least in part in the vertical
10 direction.

25. Collecting pad according to claim 23 or 24, wherein said at least one incision (28) and said incision barrier parts (25, 27) are configured to correspond essentially to support means for said object, e.g. landing wheels (24, 26) for an aircraft (20) or
15 wheels for a vehicle, a trailer, a machine etc. in such a manner that said incision barrier parts can be placed covering said support means.

26. Collecting pad according to claim 23, 24 or 25, wherein said at least one incision (28) comprises connecting means for connecting the two edges of the incision (28)
20 for at least part of the incision.

27. Collecting pad according to claim 26, wherein said connecting means for connecting the two edges of the incision are designed to be essentially fluid-tight.

25 28. Collecting pad according to claim 26 or 27, wherein said connecting means for connecting the two edges of the incision comprise Velcro parts, zip-fastener parts or similar means.

29. Collecting pad according to one or more of claims 12 to 28, wherein said
30 collecting pad (2) comprises inlet means for means such as a tube (14) for transferring collected fluid away from the collecting pad.

30. Collecting pad according to claim 29, wherein said inlet means comprises a connection pipe (42, 43) extending through the collecting pad (2), preferably through a barrier part.

5 31. Collecting pad according to claim 29, wherein said inlet means comprises a conduit (16) placed at one or both ends of the collecting pad (2) extending essentially along the barrier parts (4) inside the collecting pad, said conduit comprising inlet holes (17) facing downwards and a connecting part (18) for fluid transferring means.

10 32. Collecting pad according to one or more of claims 12 to 31, wherein said flexible base pad (6) and/or said barrier parts (4, 25, 27) are manufactured from a material that is fluid-tight and resistant to cleaning agents, oil, fuel etc.

15 33. Collecting pad according to one or more of claims 12 to 32, wherein said flexible base pad (6) and/or said barrier parts (4, 25, 27) are manufactured from a material with a surface having efficient friction properties also when the surface is wet, e.g. with slip-resistant property.

20 34. Collecting pad according to one or more of claims 12 to 33, wherein said flexible base pad (6) is manufactured from a reinforced material, e.g. with web-reinforcing means.

25 35. Collecting pad according to one or more of claims 12 to 34, wherein said flexible base pad (6) is provided with at least a further reinforcing layer in specific areas, in particular tracks for wheels of e.g. vehicles.

30 36. Collecting pad according to one or more of claims 12 to 35, wherein said barrier parts (4, 25, 27) are connected to said flexible base pad by means of welding or gluing.

37. Collecting pad according to one or more of claims 12 to 36, wherein said collecting pad (2) further comprises cover means for covering an object, e.g. a

vehicle, placed on the pad, said cover having at least one opening, through which said object can pass, and closing means for said opening.

38. Method of treating, cleaning, washing etc. of objects such as vehicles, aircrafts, machines, containers etc., said method comprising the steps of
- 5 - supplying a collecting pad (2) with barrier means (4, 25, 27), said collecting pad being stored on a separate handling device (60), which is transported on a mobile unit,
 - unloading said handling device (60),
 - 10 - positioning said handling device (60),
 - unrolling said collecting pad (2) from said handling device (60) and moving said handling unit correspondingly,
 - deploying said barrier means (4, 25, 27), e.g. inflating inflatable barrier means (4),
 - arranging tube connections (16) for transporting collected fluids, e.g. used wash
 - 15 water, from said collecting pad to e.g. a storage tank 78), and
 - arranging means for supplying and delivering water for washing and cleaning said object.